

Notice of Allowability

Application No.

10/629,279

Examiner

JOHN J. TABONE JR

Applicant(s)

NORMAN ET AL.

Art Unit

2117

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments and arguments filed 05/13/2008.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 05132008
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 07172008.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Cynthia Britt/
Primary Examiner, Art Unit 2117

DETAILED ACTION

1. Claims 1-3, 6, 9, 10 and 12 are amended. Claims 13-20 are added. Thus, claims 1-20 remain pending in this application and have been examined.
2. The current application is a Divisional of parent case, 09/641693, filed on Aug. 18, 2000, now Patent US-6,661,191.

Double Patenting

3. A Double Patenting rejection was written in the Non-Final Rejection of 02/13/2008. In a phone interview on 07/16/2008 Attorney Marv Beekman brought to the Examiner's attention that claims 1-12 of the current application were restricted from the parent case, 09/641693, now Patent US-6,661,191 as originally filed claims 47-58. The current application was filed as a Divisional of the parent application as a result of the restriction requirement and, according to 35 USC 121 and MPEP 804.01, a Double Patenting rejection would be improper and is prohibited. The Examiner agreed with Attorney Beekman and has withdrawn the Double Patenting Rejection of 02/13/2008.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Marv Beekman Reg. No. 38,377 on 07/16/2008.

The application has been amended as follows:

Claim 1, lines 6, 8 and 10; Delete the word "intended".

Claim 3, lines 6, 8 and 10; Delete the word "intended".

Claim 6, lines 6, 8 and 10; Delete the word "intended".

Response to Arguments

5. Applicant's arguments filed 05/13/2008 with respect to independent claims 1, 3, 6 and 9 have been fully considered and are persuasive. The Non-Final Rejection of 02/13/2008 has been withdrawn.

Information Disclosure Statement

6. The information disclosure statement (IDS) submitted on 05/13/2008 was filed after the mailing date of the Non-Final Rejection on 02/13/2008. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Allowable Subject Matter

7. **Claims 1-20** are allowed.

The following is an Examiner's Statement of Reasons for Allowance:

The present invention relates to multistate memory devices, and more specifically, to an apparatus and method for detecting and correcting an over-programming condition in a memory cell of such a device.

The claimed invention as set forth in **claim 1** (broadest claim) recites features such as:

An over-programming condition detector for use with an array of multistate memory cells, each cell programmable to store an amount of electric charge representative of a desired state selected from at least four sequential data states, the detector comprising:

a first logic gate for detecting a first one of the at least four sequential data states in data to be written to the array;

a second logic gate for detecting a second one of the at least four sequential data states in data to be written to the array;

a third logic gate for detecting a third one of the at least four sequential data states in data to be written to the array;

a fourth logic gate for receiving data written to the array; and

over-programming detection logic connected to the first, second, third and fourth logic gates for generating an over-programming error signal.

The Examiner agrees with the Applicants' arguments filed 05/13/2008 with regard to the features of independent claims 1, 3, 6 and 9 in view of the prior arts of record, namely **Endoh et al.** (US-5602789); therefore, the Examiner favors the

allowance of **claims 1-20**. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN J. TABONE JR whose telephone number is (571)272-3827. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JACQUES H. LOUIS JACQUES can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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